

REMARKS

Claims 1-20 are pending. By this Amendment, claims 1, 7, 9, 10 and 18-20 are amended.

Claim 20 was rejected under 35 U.S.C. §112, second paragraph. By this Amendment, claim 20 has been amended responsive to the rejection. It is respectfully requested that the rejection be withdrawn.

Claims 1, 9-16 and 18-20 were rejected under 35 U.S.C. §102(b) over Walenty et al. (Walenty), U.S. Patent No. 5,139,315 and claims 2-8 and 17 were rejected under 35 U.S.C. §103(a) over Walenty in view of Matsuo et al. (Matsuo), U.S. Patent No. 4,629,043. The rejections are respectfully traversed.

Neither Walenty nor Matsuo disclose or suggest a vehicular parking brake apparatus wherein an operating force of the right-side parking brake and an operating force of the left-side parking brake are commonly controlled by driving the drive power source based on a state of slip of a wheel of the right-side wheel and the left-side wheel that exhibits a greater change in a state of wheel rotation as recited in claim 1 and as similarly recited in claim 17.

Walenty discloses a vehicle parking brake system that individually controls the rear brakes. In Walenty, only the right rear wheel 14 is illustrated with the braking of the left rear wheel identical in form (col. 2, lines 22-25). Each wheel includes an electrically operated brake 16 that is controlled by a controller 18 (col. 2, lines 25-35). The controller 18 controls a current to the torque motor of the electrically operated brake 16 so as to establish a braking pressure proportional to the pressure applied by the operator to the brake pedal 12 (col. 2, lines 35-42). In order to avoid slip, Walenty provides the routine of Fig. 3. This routine is repeated once for each wheel during each control cycle using the parameters associated with the selected wheel (col. 5, line 68 - col. 6, line 3).

Accordingly, Walenty fails to disclose a right-side parking brake and a left-side parking brake that are commonly controlled because Walenty provides individual parking brakes that are individually controlled. Walenty also fails to control the driving of their drive power source based on the state of slip of the wheel of the right-side wheel and the left-side wheel that exhibits a greater change in the state of the wheel rotation because Walenty only uses parameters associated with a currently selected wheel. In other words, the amount of slip in one wheel in Walenty does not control the driving of the drive power source for the other wheel.

Matsuo fails to overcome the deficiencies of Walenty because Matsuo fails to disclose how their brakes are controlled when a slip occurs. Matsuo is only concerned with the operation of their braking system based on the gradient of the road (col. 2, lines 15-41). As such, Matsuo fails to overcome the deficiencies of Walenty in controlling a drive power source based on a state of slip as recited in Applicants' claims 1 and 17.

Furthermore, Walenty is only concerned with controlling individual brakes. It is neither taught nor suggested, nor is there any motivation in Walenty to replace Walenty's individually controlled brakes with Matsuo's braking system which uses a cable 5 to control brakes 3, 3. Nor is there any teaching or suggestion in either Walenty or Matsuo to provide a routine to control the slip of commonly controlled brakes.

Neither Walenty nor Matsuo disclose or suggest a vehicular parking brake apparatus with a controller that controls an operating force of the parking brakes by increasing/reducing the drive power of the drive power source while reducing an overshoot of the state of slip of the wheels corresponding to the parking brakes wherein an operating force of the right-side parking brake and the operating force of a left-side parking brake are commonly controlled as recited in claim 7 and as similarly recited in claim 18.

Also neither Walenty nor Matsuo disclose or suggest a vehicular parking brake apparatus with a parking brake controller that controls an operating forces of the right-side parking brake and an operating force of the left-side parking brake by switching the drive power source at least between an increase state in which the drive power source is operated so that the operating forces of the parking brakes are increased, and a decrease state in which the drive power source is operated so that the operating forces of the parking brakes are decreased, based on a state of slip of a wheel corresponding to the parking brakes, wherein the operating force of the right-side parking brake and the operating force of the left-side parking brake are commonly controlled, as recited in claim 9 and as similarly recited in claim 19.

As discussed above, Walenty fails to provide commonly controlled brakes. Logically, Walenty fails to control commonly controlled brakes as recited in claims 7, 9, 18 and 19. Furthermore, Matsuo fails to provide any control with regard to slip as discussed above, nor is there any teaching, motivation or suggestion to combine Walenty with Matsuo. As such, neither Walenty nor Matsuo disclose or suggest the features recited in Applicants' claims 7, 9, 18 and 19.

In addition, claims 2-6, 8, 10-16 and 20 recite additional features of the invention and are also believed to be allowable for the reasons discussed above with respect to claims 1, 7, 9 and 19 and for the additional features recited herein. It is respectfully requested the rejections be withdrawn.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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